

A New Look at the New Jersey Coppers

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Abstract

An actively maintained database of technical and die state observations currently includes data on over 1,800 New Jersey coppers. A series of studies of the biennial die linkages in the New Jersey series, drawing on this database, has established die emission sequences and proposed mint attributions for four die families (J, U, f, and g) which revise earlier works on the series. The studies suggest that no coppers were struck in 1786, but that other die combinations were legally struck in 1789. It is probable that New Jersey coppers were struck into 1790, by the same triumvirate that set up the Rahway Mint in 1786. The role of one of the partners, Matthias Ogden, requires more emphasis than has previously been accorded him.

I. Nature of the Current Project.

Began as a simple study of one biennial die family, reverse J, which is known married to obverses dated 1786 and 1787. The results of the study were so interesting that the project was expanded to include studies of all 11 biennial die pairings in the New Jersey series. To date, four biennial die families have been studied and a fifth, of reverse L, is underway.

1. Definition of the term "biennial die".

- A. Coined by Ned Barnsley (CNL, April 1968).
- B. Any die known married to others bearing different dates.
 - a) In N.J. series, the biennial die is the undated reverse.
 - b) In C.T. series, the biennial is the undated obverse.

2. Importance of biennial dies.

- A. If a biennial suffered progressively more severe damage over its lifespan, then its relative chronology can be established, as with any other die's. Relative chronology is simply the die emission sequence.
- B. If the die emission sequence contradicts the apparent chronology of the dated sides of its various combinations, then the absolute chronology of the die family may also be established with some confidence, given other analytical techniques described later on. Absolute chronology is the calendar year of striking.
- C. Each of the four studies so far completed has shown that the die emission sequences do contradict the dating sequences proposed by the dated sides of the combinations examined. Thus far, 1786 dated combinations appear to have been struck in 1787, and later;

while 1787 dated ones appear to have been struck in 1787, and later. These combinations, therefore, were backdated, and no confidence can be had in their obverse dates. Subtleties in the new chronologies proposed for these four families are not addressed here.

3. Parallel examples of backdating.

- A. Connecticut. To take only one example, 1785 obverse 7.1 is the same die as 1786 obverse 4.2. Yet, 7.1 is known later than 4.2, showing that some, at least, 7.1-D were struck after some 4.2-R.
- B. 1783 Constellatio Novas. The classic case, struck late in 1785, maybe into 1786, yet backdated at least three years. One of the few examples of backdating for which there is contemporary, written documentation (*Morning Chronicle and London Advertiser*, March 16, 1786).
- C. "1781" North American token; "1783" Unity States, Military Bust, Draped Bust, Double-headed Washington pieces, and so on.

4. Importance of backdating.

- A. In the New Jersey series the U, and f and g, families had been known to conceal backdated combinations by Maris. This understanding extended only to the immediate family members of these dies, however. No study of the extended families of these dies has been attempted until recently. Immediate family members are those paired with the biennial die; extended family members are those related in the second and later degrees (eg: U Family. Immediate Family is 15-U and 33-U; Extended Family is 15-J, 15-L, and 15-T, in the second degree, and all other combinations of reverses J, L, and T in the third and later degrees.
- B. Backdating in the J family was not hitherto suspected.
- C. In the absence of this knowledge, and lacking detailed die emission sequences, sequences and mint attribution schemes proposed by earlier writers require testing against the newly derived evidence from the coins themselves.
- D. The little contemporary documentation that survives regarding the New Jersey coinage operations poses many difficult problems of interpretation. Some of these may now be open to solution.

II. Methodology Employed.

1. Data accumulation.

- A. Data types. Each coin is listed by Maris number, with its weight, (in grains), diameter (on the broadest axis, in millimeters), and reverse die axis (in degrees, the obverse assumed to be at the 0° position) given. The source of the observation is listed, as well, to help avoid duplicate entries (duplication is also prevented by the combination of the previous three parameters). Obverse and reverse die states are recorded.
- B. Data sources. Include auction consignments (Norweb, Taylor, Sherr,

Cole, etc collections); public collections (ANS, NJHS, CSL, SI); private collections studied; and specimens in other auction companies' catalogues (only if published with weights and plates adequate for die state conclusions).

- C. Database size. Currently includes data on 1,800 New Jersey; 2,200 Connecticut; 800 Vermont; 60 Continental Currency pieces; etc.
- D. Data processing. *Paradox* 3.0 relational database manager used for list maintenance and analysis. Data imported into *Quattro* 1.1 spreadsheet for statistical analysis and histograms.

2. Data analysis.

- A. Die emission sequences. This part is easy, since all is required are good notes/photographs and time.
- B. Histograms. These graph varieties by any single numerical parameter chosen, including weight, die axis, diameter, etc.
- C. Scatterplots. These graph varieties by two numerical parameters, such as weight by diameter, diameter by die axis, etc.
- D. Statistical analysis. This part is hard, since the statistical tools available depend largely on the sample size of each variety studied. Useful functions with general application include the mean, median, mode, and standard deviation(s). Small sample sizes can be analyzed by arcane tools like Pearson's Coefficients of Skewness and Variation, or the Standard Error of the Mean. Ranking into quartiles and deriving the Semi-Interquartile Range is an extremely useful way of describing the dispersal of a sample whose weights are not evenly distributed around its mean.

3. Goal of the analysis.

- A. Simply put, to discover any patterns in the metrology and mensuration (i.e., weights and other measurements) of varieties.
- B. More importantly, to fine tune the analysis to take die state into account. In other words, to expand the statistical analysis to varieties by die state; this reveals any patterns/changes in the metrology and mensuration of a variety over time. Results of this part of the analysis describe the life history of a variety.
- C. With the metrological and mensural history of a variety established, we are very close to the daily activities of the New Jersey mints themselves, since the weight standard(s), flan diameters, and die orientations were chosen by the minters and were not accidental.
- D. These results can then be correlated with the die emission sequences established by more traditional numismatic methods, and the picture created from the evidence of the coins themselves can be correlated with the remaining written historical record of the coinage.
- E. This final correlation may deepen our understanding of some parts of the historical record, and may suggest mint attributions that are grounded upon more substantial evidence than has been hitherto available.

III. Some Recent Results.

1. Reverse J family.

- A. Includes 13-J, 14-J, 15-J, 16-J, 17-J, 18-J, 34-J, 35-J, 36-J, 37-J.
- B. Die emission sequences established.
- C. All varieties appear to have been backdated.
- D. New dating sequences proposed.
- E. New mint attribution schemes proposed.
- F. Results to be published in *ANS Museum Notes*.

2. Reverse U family.

- A. Includes 15-U, 33-U, 15-J, 15-L, 15-T.
- B. Die emission sequences established.
- C. All varieties appear to have been backdated.
- D. New dating sequences proposed.
- E. New mint attribution schemes proposed.
- F. Results to be published in *ANA Centennial Anthology*.

3. Reverses f and g families.

- A. Includes 37-f, 48-f, 49-f, 50-f, 48-g, 51-g, 37-X, 48-X, 37-J, 37-Y.
- B. Die emission sequences established.
- C. All varieties appear to have been backdated.
- D. New dating sequences proposed.
- E. New mint attribution schemes proposed.
- F. Results (abbreviated) to be published in *CNL* 83.

4. The phenomenon of robust weights in later states.

- A. Seen in late states of all four families studied.
- B. Weights of some varieties become heavier, particularly 37-J, 15-L, 15-T, 37-f, 48-f, 48-g, 37-X, and 37-Y.
- C. Was there a "reform" of the coinage after June, 1788?

5. The role of Matthias Ogden.

- A. The "forgotten man" of the New Jersey coinage.
- B. The Fugio contract proposal of March, 1787.
- C. The N.J. Chancery Court's Rule of Reference of June, 1788.
- D. The coinage of 1789?

IV. Goals for the future.

- 1. Continue the individual biennial die studies.
- 2. Continue with archival research.
- 3. Combine 1 & 2 into a book on the history of the New Jersey coinage.